

## General

### Title

Chronic obstructive pulmonary disease (COPD): percentage of patients aged 18 years and older with a diagnosis of COPD who had spirometry results documented.

### Source(s)

American Thoracic Society (ATS). Chronic obstructive pulmonary disease (COPD): spirometry evaluation. New York (NY): American Thoracic Society (ATS); 2015 May 21. 3 p.

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Process

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percentage of patients aged 18 years and older with a diagnosis of chronic obstructive pulmonary disease (COPD) who had spirometry results documented.

### Rationale

Evaluation of lung function for a patient with chronic obstructive pulmonary disease (COPD) is vital to determine what treatments are needed and whether those treatments are effective. COPD is often underdiagnosed and misdiagnosed in the primary care setting (Tinkelman et al., 2006). Marked underutilization of spirometry testing has been well documented and is thought to be a contributing factor (Foster et al., 2007; Yawn & Wollan, 2008; Lee et al., 2006; Damarla et al., 2006). A recent study found that only 32% of patients with a new diagnosis of COPD had undergone spirometry within the previous 2 years to 6 months following diagnosis (Han et al., 2007). This measure is for patients already diagnosed with COPD, in order to confirm diagnosis.

### Clinical Recommendation Statements:

A clinical diagnosis of COPD should be considered in any patient who has dyspnea, chronic cough or sputum production, and a history of exposure to risk factors for the disease. Spirometry is required to make the diagnosis in this clinical context; the presence of a post-bronchodilator forced expiratory volume in 1 second (FEV<sub>1</sub>)/forced vital capacity (FVC) less than 0.70 confirms the presence of persistent airflow limitation and thus of COPD...Whereas spirometry was previously used to support a diagnosis of COPD, spirometry is now required to make a confident diagnosis of COPD. Spirometry is the most reproducible and objective measurement of airflow limitation available (Global Initiative for Chronic Obstructive Lung Disease [GOLD], 2015).

American College of Physicians (ACP), American College of Chest Physicians (ACCP), American Thoracic Society (ATS), and European Respiratory Society (ERS) [COPD Guidelines] recommend that spirometry should be obtained to diagnose airflow obstruction in patients with respiratory symptoms ...Spirometry is a pulmonary function test that is useful to identify airflow obstruction in symptomatic patients who may benefit from pharmacotherapy, long-term oxygen, or pulmonary rehabilitation (or all of these strategies). Symptomatic patients with FEV<sub>1</sub> less than 60% predicted will benefit from inhaled treatments (anticholinergics, long-acting beta-agonists, or corticosteroids) (Qaseem et al., 2011).

## Evidence for Rationale

American Thoracic Society (ATS). Chronic obstructive pulmonary disease (COPD): spirometry evaluation. New York (NY): American Thoracic Society (ATS); 2015 May 21. 3 p.

Damarla M, Celli BR, Mullerova HX, Pinto-Plata VM. Discrepancy in the use of confirmatory tests in patients hospitalized with the diagnosis of chronic obstructive pulmonary disease or congestive heart failure. *Respir Care*. 2006 Oct;51(10):1120-4. [PubMed](#)

Foster JA, Yawn BP, Maziar A, Jenkins T, Rennard SI, Casebeer L. Enhancing COPD management in primary care settings. *MedGenMed*. 2007;9(3):24. [PubMed](#)

Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. Vancouver (WA): Global Initiative for Chronic Obstructive Lung Disease (GOLD); 2015. [613 references]

Han MK, Kim MG, Mardon R, Renner P, Sullivan S, Diette GB, Martinez FJ. Spirometry utilization for COPD: how do we measure up?. *Chest*. 2007 Aug;132(2):403-9. [PubMed](#)

Lee TA, Sullivan ST, Buist AS, et al. Estimating the future economic burden of COPD. *ATS Proc*. 2006;3:A598.

Qaseem A, Wilt TJ, Weinberger SE, Hanania NA, Criner G, van der Molen T, Marciniuk DD, Denberg T, Schunemann H, Wedzicha W, MacDonald R, Shekelle P, American College of Physicians, American College of Chest Physicians, American Thoracic Society, European Respiratory Society. Diagnosis and management of stable chronic obstructive pulmonary disease: a clinical practice guideline update from the American College of Physicians, American College of Chest Physicians, American Thoracic Society, and European Respiratory Society. *Ann Intern Med*. 2011 Aug 2;155(3):179-191. [62 references] [PubMed](#)

Tinkelman DG, Price DB, Nordyke RJ, Halbert RJ. Misdiagnosis of COPD and asthma in primary care patients 40 years of age and over. *J Asthma*. 2006 Jan-Feb;43(1):75-80. [PubMed](#)

Yawn BP, Wollan PC. Knowledge and attitudes of family physicians coming to COPD continuing medical

## Primary Health Components

Chronic obstructive pulmonary disease (COPD); spirometry; forced expiratory volume in 1 second (FEV<sub>1</sub>); forced vital capacity (FVC)

## Denominator Description

All patients aged 18 years and older with a diagnosis of chronic obstructive pulmonary disease (COPD) (see the related "Denominator Inclusions/Exclusions" field)

## Numerator Description

Patients with documented spirometry results in the medical record (forced expiratory volume in 1 second [FEV<sub>1</sub>] and FEV<sub>1</sub>/forced vital capacity [FVC]) (see the related "Numerator Inclusions/Exclusions" field)

## Evidence Supporting the Measure

### Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

### Additional Information Supporting Need for the Measure

Unspecified

### Extent of Measure Testing

Unspecified

## State of Use of the Measure

### State of Use

Current routine use

### Current Use

not defined yet

## Application of the Measure in its Current Use

## Measurement Setting

Ambulatory/Office-based Care

## Professionals Involved in Delivery of Health Services

not defined yet

## Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

## Statement of Acceptable Minimum Sample Size

Does not apply to this measure

## Target Population Age

Age greater than or equal to 18 years

## Target Population Gender

Either male or female

# National Strategy for Quality Improvement in Health Care

## National Quality Strategy Aim

Better Care

## National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

# Institute of Medicine (IOM) National Health Care Quality Report Categories

## IOM Care Need

Living with Illness

## IOM Domain

Effectiveness

# Data Collection for the Measure

## Case Finding Period

The reporting period

## Denominator Sampling Frame

Patients associated with provider

## Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Patient/Individual (Consumer) Characteristic

## Denominator Time Window

not defined yet

## Denominator Inclusions/Exclusions

### Inclusions

All patients aged 18 years and older with the diagnosis of chronic obstructive pulmonary disease (COPD)

Note: Refer to the original measure documentation for administrative codes.

### Exclusions

Documentation of medical reason(s) for not documenting and reviewing spirometry results

Documentation of patient reason(s) for not documenting and reviewing spirometry results

Documentation of system reason(s) for not documenting and reviewing spirometry results

## Exclusions/Exceptions

not defined yet

## Numerator Inclusions/Exclusions

### Inclusions

Patients with documented spirometry results in the medical record (forced expiratory volume in 1 second [FEV<sub>1</sub>] and FEV<sub>1</sub>/forced vital capacity [FVC])

Note: Refer to the original measure documentation for administrative codes.

### Exclusions

Unspecified

## Numerator Search Strategy

Fixed time period or point in time

## Data Source

Administrative clinical data

Paper medical record

Registry data

## Type of Health State

Does not apply to this measure

## Instruments Used and/or Associated with the Measure

Unspecified

## Computation of the Measure

### Measure Specifies Disaggregation

Does not apply to this measure

## Scoring

Rate/Proportion

## Interpretation of Score

Desired value is a higher score

## Allowance for Patient or Population Factors

not defined yet

## Standard of Comparison

not defined yet

## Identifying Information

### Original Title

Spirometry evaluation.

## Measure Collection Name

Chronic Obstructive Pulmonary Disease (COPD) Measures

## Submitter

American Thoracic Society - Medical Specialty Society

## Developer

American Thoracic Society - Medical Specialty Society

## Funding Source(s)

American Thoracic Society

## Composition of the Group that Developed the Measure

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## Financial Disclosures/Other Potential Conflicts of Interest

Financial/potential conflict of interest disclosed in accordance with the American Thoracic Society policy.

## Endorser

National Quality Forum - None

## NQF Number

not defined yet

## Date of Endorsement

2015 May 21

## Measure Initiative(s)

Physician Quality Reporting System

## Adaptation

This measure was not adapted from another source.

## Date of Most Current Version in NQMC

2015 May

## Measure Maintenance

The American Thoracic Society updates measures annually

## Date of Next Anticipated Revision

Unspecified

## Measure Status

This is the current release of the measure.

This measure updates a previous version: Physician Consortium for Performance Improvement®. Clinical performance measures: chronic obstructive pulmonary disease (COPD). Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2006. 8 p. [12 references]

## Measure Availability

Source not available electronically.

For more information, contact the American Thoracic Society (ATS) at 25 Broadway, New York, NY 10004; Phone: 202-315-8600; Fax: 212-315-6498; E-mail: [ATSInfo@Thoracic.org](mailto:ATSInfo@Thoracic.org); Web site: [www.thoracic.org](http://www.thoracic.org)

## NQMC Status

This NQMC summary was completed by ECRI on August 28, 2006. The information was verified by the measure developer on July 6, 2007.

This NQMC summary was retrofitted into the new template on August 5, 2011.

Stewardship for this measure was transferred from the PCPI to the ATS. ATS informed NQMC that this measure was updated. This NQMC summary was updated by ECRI Institute on July 29, 2015. The information was verified by the measure developer on August 31, 2015.



## Copyright Statement

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## Production

### Source(s)

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## Disclaimer

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